

OIPE

RAW SEQUENCE LISTING

DATE: 06/20/2001

PATENT APPLICATION: US/09/873,403

TIME: 12:15:28

Input Set : A:\8449178a.app

Output Set: N:\CRF3\06202001\1873403.raw 4 <110> APPLICANT: Srivstava, Pramod K 6 <120> TITLE OF INVENTION: COMPLEXES OF ALPHA (2) MACROGLOBULIN AND ANTIGENIC MOLECULES FOR IMMUNOTHERAPY 9 <130> FILE REFERENCE: 8449-178 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/873,403 C--> 11 <141> CURRENT FILING DATE: 2001-06-04 FNTERED 11 <150> PRIOR APPLICATION NUMBER: 09/625,139 12 <151> PRIOR FILING DATE: 2000-07-25 14 <150> PRIOR APPLICATION NUMBER: 60/209,266 15 <151> PRIOR FILING DATE: 2000-06-02 17 <160> NUMBER OF SEQ ID NOS: 5 19 <170> SOFTWARE: FastSEO for Windows Version 3.0 21 <210> SEO ID NO: 1 22 <211> LENGTH: 14849 23 <212> TYPE: DNA 24 <213> ORGANISM: Mus musculus 26 <400> SEQUENCE: 1 27 cgctgctccc cgccagtgca ctgaggaggc ggaaacgggg gagcccctag tgctccatca 60 28 ggcccetace aaggcaccec categggtee acgccccca coccccacce egectectee 120 29 caattgtgca tttttgcagc cggagtcggc tccgagatgg ggctgtgagc ttcgccctgg 180 30 gagggggaga ggagcgagga gtaaagcagg ggtgaagggt tcgaatttgg gggcaggggg 240 300 31 egeaecegeg teageaggee etteecaggg ggeteggaae tgtaceattt eacetatgee 32 cctggttcgc tttgcttaag gaaggataag atagaagagt cggggagagg aagataaagg 360 33 gggacccccc aattgggggg ggcgaggaca agaagtaaca ggaccagagg gtggggctg 420 34 ctgtttgcat cggcccacac catgctgacc ccgccgttgc tgctgctcgt gccgctgctt 480 35 teagetetgg teteegggge caetatggat geceetaaaa ettgeageee taageagttt 540 36 gcctgcagag accaaatcac ctgtatctca aagggctggc ggtgtgacgg tgaaagagat 600 37 tgccccgacg gctctgatga agcccctgag atctgtccac agagtaaagc ccagagatgc 660 38 ccgccaaatg agcacagttg tctggggact gagctatgtg tccccatgtc tcgtctctgc 720

39 aacgggatcc aggactgcat ggatggctca gacgagggtg ctcactgccg agagctccga 780 40 gccaactgtt ctcgaatggg ttgtcaacac cattgtgtac ctacacccaq tgggcccacg 840 41 tgctactgta acagcagett ecagetegag geagatggea agaegtgeaa agattttgae 900 42 gagtgttccg tgtatggcac ctgcagccag ctttgcacca acacagatgg ctccttcaca 960 43 tgtggctgtg ttgaaggcta cctgctgcaa ccggacaacc gctcctgcaa ggccaagaat 1020 1080 44 gagccagtag atcggccgcc agtgctactg attgccaact ctcagaacat cctagctacg 45 tacctgagtg gggcccaagt gtctaccatc acacccacca gcacccgaca aaccacggcc 1140 46 atggaettea gttatgeeaa tgagaeegta tgetgggtge aegttgggga eagtgetgee 1200 47 cagacacage teaagtgtge eeggatgeet ggeetgaagg getttgtgga tgagcatace 1260 48 atcaacatct ccctcagcct gcaccacgtg gagcagatgg caatcgactg gctgacggga 1320 49 aacttetaet ttgtegaega eattgaegae aggatetttg tetgtaaeeg aaaeggggae 1380 50 acctgtgtca ctctgctgga cctggaactc tacaacccca aaggcatcgc cttggacccc 1440 51 gccatgggga aggtgttctt cactgactac gggcagatcc caaaggtgga gcgctgtgac 1500 52 atggatggac agaaccgcac caagctggtg gatagcaaga tcgtgtttcc acacggcatc 1560 53 accetggace tggtcageeg cetegtetae tgggeggaeg cetacetaga etacategag 1620 54 gtggtagact acgaagggaa gggtcggcag accatcatcc aaggcatcct gatcgagcac 1680 55 ctgtacggcc tgaccgtgtt tgagaactat ctctacgcca ccaactcgga caatgccaac 1740 56 acgcagcaga agacgagcgt gatccgagtg aaccggttca acagtactga gtaccaggtc 1800

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| 57 | gtcacccgtg | tggacaaggg | tggtgccctg | catatctacc | accagcgacg | ccagccccga | 1860 |
|-----|------------|------------|------------|------------|------------|------------|----------------------|
| | | | gaatgaccag | | | | 1920 |
| | | | caaggcaagg | | | | 1980 |
| | | | taagaaacct | | | | 2040 |
| | | | aggcatggac | | | | 2100 |
| | | | gaatccacgc | | | | 2160 |
| 63 | atctactttg | ctgacaccac | cagctacctc | attggccgcc | agaaaattga | tggcacggag | 2220 |
| 64 | agagagacta | tcctgaagga | tggcatccac | aatgtggagg | gcgtagccgt | ggactggatg | 2280 |
| | | | tgatgatggc | | | | 2340 |
| 66 | gagaaagccg | ctcagacccg | gaagactcta | attgagggca | agatgacaca | ccccagggcc | 2400 |
| 67 | attgtagtgg | atccactcaa | tgggtggatg | tactggacag | actgggagga | ggaccccaag | 2460 |
| 68 | gacagtcggc | gagggcggct | cgagagggct | tggatggacg | gctcacaccg | agatatcttt | 2520 |
| 69 | gtcacctcca | agacagtgct | ttggcccaat | gggctaagcc | tggatatccc | agccggacgc | 2580 |
| 70 | ctctactggg | tggatgcctt | ctatgaccga | attgagacca | tactgctcaa | tggcacagac | 2640 |
| 71 | cggaagattg | tatatgaggg | tcctgaactg | aatcatgcct | tcggcctgtg | tcaccatggc | 2700 |
| 72 | aactacctct | tttggaccga | gtaccggagc | ggcagcgtct | accgcttgga | acggggcgtg | 2760 |
| 73 | gcaggcgcac | cgcccactgt | gacccttctg | cgcagcgaga | gaccgcctat | ctttgagatc | 2820 |
| | | | gcagcaagtg | | | | 2880 |
| 75 | ggctgcagca | gcctgtgcct | cgccaccccc | gggagccgcc | agtgtgcctg | tgccgaggac | 2940 |
| 76 | caggtgttgg | acacagatgg | tgtcacctgc | ttggcgaacc | catcctacgt | gcccccaccc | 3000 |
| 77 | cagtgccagc | cgggccagtt | tgcctgtgcc | aacaaccgct | gcatccagga | gcgctggaag | 3060 |
| 78 | tgtgacggag | acaacgactg | tctggacaac | agcgatgagg | ccccagcact | gtgccatcaa | 3120 |
| 79 | cacacctgtc | cctcggaccg | attcaagtgt | gagaacaacc | ggtgtatccc | caaccgctgg | 3180 |
| 80 | ctctgtgatg | gggataatga | ttgtggcaac | agcgaggacg | aatccaatgc | cacgtgctca | 3240 |
| 81 | gcccgcacct | gtccacccaa | ccagttctcc | tgtgccagtg | gccgatgcat | tcctatctca | 3300 |
| 82 | tggacctgtg | atctggatga | tgactgtggg | gaccggtccg | atgagtcagc | ctcatgcgcc | 3360 |
| | | | gactcaattt | | | | 3420 |
| 84 | aactggcggt | gtgacaacga | caatgactgt | ggggacaaca | gcgacgaagc | cggctgcagt | 3480 |
| | | | gttcaagtgc | | | | 3540 |
| 86 | acgtgtgatg | gggacaatga | ttgtggggac | tacagcgacg | agacacacgc | caactgtacc | 3600 |
| 87 | aaccaggcta | caagacctcc | tggtggctgc | cactcggatg | agttccagtg | cccgctagat | 3660 |
| 88 | ggcctgtgca | tccccctgag | gtggcgctgc | gacggggaca | ccgactgcat | ggattccagc | 3720 |
| | | | cgtgacccat | | | | 3780 |
| | | | cagcaaggcg | | | | 3840 |
| | | | ctgtgaggcc | | | | 3900 |
| 92 | gccaacaaca | cctctgtctg | cctgcctcct | gacaagctgt | gcgacggcaa | ggatgactgt | _ _3960 _ |
| | | | cgagctctgt | | | | 4020 |
| | | | ccctggtgaa | | | | 4080 |
| 95 | gagctgggct | ctgacaacca | cacctgccag | atccagagct | actgtgccaa | gcacctcaaa | 4140 |
| | | | gaacaagttc | | | | 4200 |
| | | | aacgtgccgc | | | | 4260 |
| | | | caggcgcatt | | | | 4320 |
| | | | tattgccctg | | | | 4380 |
| | | | | | | cggagccctg | 4440 |
| | | | | | | ggctgtagat | 4500 |
| | | | | | | agtggccaag | 4560 |
| 103 | ctggacggaa | ccctccgaac | cactctgctg | gcgggtgaca | ttgagcaccc | gagggccatc | 4620 |
| | | | | | | cctgccacga | 4680 |
| | | | | | | gacaggetet | 4740 |
| | | | | | 223 | | |

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| | gggggctgcg | | | | | | 4800 |
|-----|------------|------------|------------|------------|------------|------------|---------------------|
| | gctaggtcag | | | | | | 4860 |
| | cggggacacg | | | | | | 4920 |
| | tggaccgact | | | | | | 4980 |
| | accgtggtac | | | | | | 5040 |
| | cagcccatgg | | | | | | 5100 |
| | tgcctcatca | | | | | | 5160 |
| | aaggacaaca | | | | | | 5220 |
| | atccggggcg | | | | | | 5280 |
| | gatatcgaca | | | | | | 5340 |
| | gatgtgcgga | | | | | | 5400 |
| | gtctctgcag | | | | | | 5460 |
| | ttttggacaa | | | | | | 5520 |
| | ttcaagaatg | | | | | | 5580 |
| | cgtggcaagc | | | | | | 5640 |
| | aaccacactc | | | | | | 5700 |
| | gagagcaaac | | | | | | 5760 |
| | gggagcgagc | | | | | | 5820 |
| | gccatcatgg | | | | | | 5880 |
| | aacaaagccg | | | | | | 5940 |
| | atgaaggtgt | | | | | | 6000 |
| | aacaacggag | | | | | | 6060 |
| | tgtacagccg | | | | | | 6120 |
| | ctcctgtact | | | | | | 6180 |
| | gatgccctgg | | | | | | 6240 |
| | aatgacacta | | | | | | 6300 |
| | cagacatggc | | | | | | 6360 |
| | gactggatcg | | | | | | 6420 |
| | cggctcaatg | | | | | | 6480 |
| | atcactgtcc | | | | | | 6540 |
| | attgagcggt | | | | | | 6600 |
| | tggcccaatg | | | | | | 6660 |
| 138 | atggacaaga | tcgagcgcat | cgacctggaa | acgggcgaga | accgggaggt | ggtcctgtcc | 6720 |
| | agcaataaca | | | | | | 6780 |
| | agaactcacg | | | | | | 6840 |
| | cctctgagga | | | | | | - 6900 - |
| | cagaagggta | | | | | | 6960 |
| | cggggtggcg | | | | | | 7020 |
| | tcatgccgag | | | | | | 7080 |
| | cacctgtcgg | | | | | | 7140 |
| | atgaaaaatg | | | | | | 7200 |
| 147 | aaccgcatct | tcttcagtga | catccacttt | gggaacatcc | agcagatcaa | tgacgatggc | 7260 |
| | tcgggcagga | | | | | | 7320 |
| 149 | ggctgggaca | cactgtactg | gacaagctac | accacatcca | ccatcacccg | ccacaccgtg | 7380 |
| 150 | gaccagactc | gcccaggggc | cttcgagagg | gagacagtca | tcaccatgtc | cggagacgac | 7440 |
| 151 | cacccgagag | cctttgtgct | ggatgagtgc | cagaacctga | tgttctggac | caattggaac | 7500 |
| 152 | gagctccatc | caagcatcat | gcgggcagcc | ctatccggag | ccaacgtcct | gaccctcatt | 7560 |
| 153 | gagaaggaca | tccgcacgcc | caatgggttg | gccatcgacc | accgggcgga | gaagctgtac | 7620 |
| 154 | ttctcggatg | ccaccttgga | caagatcgag | cgctgcgagt | acgacggctc | ccaccgctat | 7680 |
| | | | | | | | |

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| 155 | gtgatcctaa | agtcggagcc | cgtccacccc | tttgggttgg | cggtgtacgg | agagcacatt | 7740 |
|------|------------|------------|------------|------------|------------|------------|-------------------|
| | | actgggtgcg | | | | | 7800 |
| 157 | atgaagctgc | ttcgggtgga | cattccccag | caacccatgg | gcatcatcgc | cgtggccaat | 7860 |
| | _ | gctgtgaact | | - | | | 7920 |
| | | cccaccaagg | | | | | 7980 |
| | | cctgccgggc | | | | | 8040 |
| | | aatgtatcag | | | | | 8100 |
| 162 | aagtccgatg | agaagccctc | ctactgcaac | tcacgccgct | gcaagaagac | tttccgccag | 8160 |
| 163 | tgtaacaatg | gccgctgtgt | atccaacatg | ctgtggtgca | atggggtgga | ttactgtggg | 8220 |
| 164 | gatggctctg | atgagatacc | ttgcaacaag | actgcctgtg | gtgtgggtga | gttccgctgc | 8280 |
| 165 | cgggatgggt | cctgcatcgg | gaactccagt | cgctgcaacc | agtttgtgga | ttgtgaggat | 8340 |
| 166 | gcctcggatg | agatgaattg | cagtgccaca | gactgcagca | gctatttccg | cctgggcgtg | 8400 |
| 167 | aaaggtgtcc | tcttccagcc | gtgcgagcgg | acatccctgt | gctacgcacc | tagctgggtg | 8460 |
| 168 | tgtgatggcg | ccaacgactg | tggagactac | agcgatgaac | gtgactgtcc | aggtgtgaag | 8520 |
| 169 | cgccctaggt | gcccgctcaa | ttactttgcc | tgccccagcg | ggcgctgtat | ccccatgagc | 8580 |
| 170 | tggacgtgtg | acaaggagga | tgactgtgag | aacggcgagg | atgagaccca | ctgcaacaag | 8640 |
| 171 | ttctgctcag | aggcacagtt | cgagtgccag | aaccaccggt | gtatctccaa | gcagtggctg | 8700 |
| 172 | tgtgacggta | gcgatgattg | cggggatggc | tccgatgagg | cagctcactg | tgaaggcaag | 8760 |
| 173 | acatgtggcc | cctcctcctt | ctcctgtccc | ggcacccacg | tgtgtgtccc | tgagcgctgg | 8820 |
| 174 | ctctgtgatg | gcgacaagga | ctgtaccgat | ggcgcggatg | agagtgtcac | tgctggctgc | 8880 |
| 175 | ctgtacaaca | gcacctgtga | tgaccgtgag | ttcatgtgcc | agaaccgctt | gtgtattccc | 8940 |
| 176 | aagcatttcg | tgtgcgacca | tgaccgtgac | tgtgctgatg | gctctgatga | atcccctgag | 9000 |
| 177 | tgtgagtacc | caacctgcgg | gcccaatgaa | ttccgctgtg | ccaatgggcg | ttgtctgagc | 9060 |
| 178 | tcccgtcagt | gggaatgtga | tggggagaat | gactgtcacg | accacagcga | tgaggctccc | 9120 |
| 179 | aagaacccac | actgcaccag | cccagagcac | aaatgcaatg | cctcatcaca | gttcctgtgc | 9180 |
| 180 | agcagcgggc | gctgcgtggc | tgaggcgttg | ctctgcaacg | gccaggacga | ctgtggggac | 9240 |
| 181 | ggttcagacg | aacgcgggtg | ccatgtcaac | gagtgtctca | gccgcaagct | cagtggctgc | 9300 |
| 182 | agtcaggact | gcgaggacct | caagataggc | tttaagtgcc | gctgtcgccc | gggcttccgg | 9360 |
| 183 | ctaaaggacg | atggcaggac | ctgtgccgac | ctggatgagt | gcagcaccac | cttcccctgc | 9420 |
| 184 | agccagctct | gcatcaacac | ccacggaagt | tacaagtgtc | tgtgtgtgga | gggctatgca | 9480 |
| 185 | ccccgtggcg | gtgaccccca | cagctgcaaa | gctgtgaccg | atgaggagcc | atttctcatc | 9540 |
| 186 | tttgccaacc | ggtactacct | gcggaagctc | aacctggacg | gctccaacta | cacactgctt | 9600 |
| 187 | aagcagggcc | tgaacaatgc | ggtcgccttg | gcatttgact | accgagagca | gatgatctac | 9660 |
| 188 | tggacgggcg | tgaccaccca | gggcagcatg | attcgcagga | tgcacctcaa | cggcagcaac | 9720 |
| 189 | gtgcaggttc | tgcaccggac | gggccttagt | aacccagatg | ggctcgctgt | ggactgggtg | 9780 |
| | | tgtactggtg | | | | | 9840 - |
| | | ggacagtgct | | | | | 9900 |
| 192 | gatgtacaga | atgggtacct | gtactggaca | gactggggtg | accactcact | gatcggccgg | 9960 |
| 193 | attggcatgg | atggatctgg | ccgcagcatc | atcgtggaca | ctaagatcac | atggcccaat | 10020 |
| 194· | ggcctgaccg | tggactacgt | cacggaacgc | atctactggg | ctgacgcccg | tgaggactac | 10080 |
| | | ccagcctgga | | | | | 10140 |
| | | cgctgaccct | | | | | 10200 |
| | | gggcccacaa | | | | | 10260 |
| | | tggacttaca | | | | | 10320 |
| | | tcaacaatgg | | | | | 10380 |
| | | cctgccccac | | | | | 10440 |
| | | caagccagtt | | | | | 10500 |
| | | aggacgactg | | | | | 10560 |
| 203 | aagtgccgcc | caggccagtt | ccagtgctcc | accggcatct | gcaccaaccc | tgccttcatc | 10620 |



PATENT APPLICATION: US/09/873,403

DATE: 06/20/2001 TIME: 12:15:29

Input Set : A:\8449178a.app

Output Set: N:\CRF3\06202001\I873403.raw

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|-----|-------------------|------------|------------|------------|------------|------------|-----------------------|
| | tgcttgccca | | | | | | 10740 |
| 206 | tgcaatgggc | aggacaactg | cggggacggc | gaggatgagc | gggattgccc | tgaggtgacc | 10800 |
| 207 | tgcgccccca | accagttcca | gtgctccatc | accaagcgct | gcatccctcg | cgtctgggtc | 10860 |
| | tgtgacaggg | | | | | | 10920 |
| | acctgtggag | | | | | | 10980 |
| 210 | aagtgtgacg | gagaagatga | ctgtggggat | ggttcagatg | agcccaagga | agagtgtgat | 11040 |
| 211 | gagcgcacct | gtgagccata | ccagttccgc | tgcaaaaaca | accgctgtgt | cccaggccgt | 11100 |
| 212 | tggcaatgtg | actacgacaa | cgactgcgga | gataactcgg | acgaggagag | ctgcacacct | 11160 |
| 213 | cggccctgct | ctgagagtga | gtttttctgt | gccaatggcc | gctgcatcgc | tgggcgctgg | 11220 |
| | aagtgtgatg | | | | | | 11280 |
| 215 | tgtgatatgg | accagttcca | gtgcaagagt | ggccactgca | tccccctgcg | ctggccgtgt | 11340 |
| 216 | gacgcggatg | ctgactgtat | ggacggcagt | gacgaggaag | cctgtggcac | tggggtgagg | 11400 |
| 217 | acctgcccat | tggatgagtt | tcaatgtaac | aacaccttgt | gcaagccgct | ggcctggaag | 11460 |
| | tgtgatggag | | | | | | 11520 |
| 219 | ttcatctgcc | ctcccaaccg | gcctttccgc | tgcaagaatg | accgagtctg | cctgtggatt | 11580 |
| | gggcgccagt | | | | | | 11640 |
| | cccccacgg | - | - | | | | 11700 |
| | cgctgtctat | | | | | | 11760 |
| 223 | gaagaagatt | gcagcatcga | ccccaagctg | accagctgtg | ccaccaatgc | cagcatgtgt | 11820 |
| | ggggacgaag | | | | | | 11880 |
| | ttccatactg | | | | | | 11940 |
| 226 | acctgctctc | agctctggaa | caaacccaag | ggaggccacc | tctgcagctg | tgcccgcaac | 12000 |
| | ttcatgaaga | | | | | | 12060 |
| | gcggatgaca | | | | _ | | 12120 |
| | acattccagg | | | | | | 12180 |
| | cgtgtctact | | | | | | 12240 |
| | gcccctccta | | | | | | 12300 |
| | aatatttcag | | | | | | 12360 |
| | tactggaccg | | | | | | 12420 |
| | aagacgctca | | | | | | 12480 |
| | ggcaccatgt | | | | | | 12540 |
| | ggcacccttc | | | | | | 12600 |
| | gactatcaca | | | | | | 12660 |
| | cggctcaacg | - | | | | | 12720 |
| | ttcagcatcg | | | | | | _ _12780 _ |
| | <u>ttcaagatee</u> | | | | | | 12840 |
| | gcctctgatg | | | | | | 12900 |
| 244 | cgcaagaaat | gcgaatggct | gtgtctgctg | agccccagcg | ggcctgtctg | cacctgtccc | 12960 |
| | aatggaaaga | | | | | | 13020 |
| | gatgccccta | | | | | | 13080 |
| | aacgctcgga | | | | | | 13140 |
| | ctggatcagt | | | | | | 13200 |
| | atgcccacgt | | | | | | 13260 |
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| | cgatgtctac | | | | | | 13380 |
| | gagaactttg | | | | | | 13440 |
| | tactttgagg | | | | | | 13500 |
| 254 | gtggtcaata | agcagaccgg | agatgtcaca | tgcaactgca | ctgatggccg | ggtagccccc | 13560 |



VERIFICATION SUMMARY

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 $L:11 \ \, \text{M}:270 \ \, \text{C}: \ \, \text{Current Application Number differs, Replaced Current Application No} \\ L:11 \ \, \text{M}:271 \ \, \text{C}: \ \, \text{Current Filing Date differs, Replaced Current Filing Date}$